

CLAIMS

We claim:

1. A method for an object-exchange client to discover an accessible object-exchange resource on a network incorporating routable communications protocols, the
5 method comprising:
 listening on a multicast channel provided according to a routable network communications protocol for an object-exchange resource identification advertisement;
 receiving at least one advertisement on the multicast channel identifying
10 an accessible object-exchange resource;
 storing information from the received advertisement; and
 using the stored information to access the identified object-exchange resource.
- 15 2. The method of claim 1 wherein the multicast channel is carried on a well-known port provided according to the routable network communications protocol.
3. The method of claim 1 wherein the received object-exchange resource identification advertisement is carried according to a protocol in the set consisting
20 of: the Simple Service Discovery Protocol and the Service Location Protocol.
4. The method of claim 1 wherein the received object-exchange resource identification advertisement contains information expressed according to an extensible markup language definition.
- 25 5. The method of claim 1 wherein the identified accessible object-exchange resource is in the group: an object-exchange server, an object-exchange service, and a second object-exchange client.

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6. The method of claim 5 wherein the identified accessible object-exchange resource is an object-exchange server and the received object-exchange resource identification advertisement lists object-exchange services provided by the object-exchange server.
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7. The method of claim 5 wherein the identified accessible object-exchange resource is an object-exchange service in the group: inbox service, file browser, and synchronization service.
- 10 8. The method of claim 1 further comprising:
applying a filter to the at least one received advertisement and discarding advertisements that do not satisfy criteria of the filter.
- 15 9. The method of claim 8 wherein at least one criterion of the filter is in the group: Globally Unique Identifier, geographical location, network hop count from the identified accessible object-exchange resource to the object-exchange client, address mask, and domain name.
- 20 10. The method of claim 1 further comprising:
making a list of the identified accessible object-exchange resources.
- 25 11. The method of claim 1 further comprising:
formulating a discovery request asking object-exchange resources to identify themselves; and
sending the discovery request over the multicast channel.
12. The method of claim 11 wherein the discovery request specifies a property desired in responsive object-exchange resources.
- 30 13. The method of claim 12 wherein the desired property is expressed according to an extensible markup language definition.

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14. The method of claim 11 wherein the scope of dispersal of the discovery request is expanded by bridging the discovery request from one network to another network.
- 5 15. The method of claim 11 wherein the scope of dispersal of the discovery request is limited by means of a network hop count.
16. A computer-readable medium containing instructions for performing a method for an object-exchange client to discover an accessible object-exchange resource on a
10 network incorporating routable communications protocols, the method comprising:
listening on a multicast channel provided according to a routable network communications protocol for an object-exchange resource identification advertisement;
15 receiving at least one advertisement on the multicast channel identifying an accessible object-exchange resource;
storing information from the received advertisement; and
using the stored information to access the identified object-exchange resource.
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17. A method for an object-exchange resource to make its accessibility known, the method comprising:
formulating an object-exchange resource identification advertisement; and
25 sending the advertisement on a multicast channel provided according to a routable network communications protocol.
18. The method of claim 17 wherein the multicast channel is carried on a well-known port provided according to the routable network communications protocol.

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19. The method of claim 17 wherein the object-exchange resource identification advertisement is carried according to a protocol in the set: the Simple Service Discovery Protocol, the Service Location Protocol.
- 5 20. The method of claim 17 wherein the object-exchange resource identification advertisement contains information expressed according to an extensible markup language definition.
- 10 21. The method of claim 17 wherein the object-exchange resource is in the group: an object-exchange server, an object-exchange service, an object-exchange client.
- 15 22. The method of claim 21 wherein the object-exchange resource is an object-exchange server and the object-exchange resource identification advertisement lists object-exchange services provided by the object-exchange server.
- 20 23. The method of claim 21 wherein the object-exchange resource is an object-exchange service in the group: inbox service, file browser, and synchronization service.
- 20 24. The method of claim 17 further comprising:
listening on the multicast channel for a discovery request asking object-exchange resources to identify themselves; and
sending an object-exchange resource identification advertisement in response to a received discovery request.
- 25 25. A computer-readable medium containing instructions for performing a method for an object-exchange resource to make its accessibility known, the method comprising:
formulating an object-exchange resource identification advertisement; and
30 sending the advertisement on a multicast channel provided according to a routable network communications protocol.